RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/807,007

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3 <110> APPLICANT: ZAPHIROPOULOS, Peter et al.
5 <120> TITLE OF INVENTION: A NOVEL COMPONENT IN THE HEDGEHOG SIGNALLING PATHWAY
7 <130> FILE REFERENCE: 2921-0130P
9 <140> CURRENT APPLICATION NUMBER: 09/807,007
10 <141> CURRENT FILING DATE: 2001-04-06
12 <160> NUMBER OF SEQ ID NOS: 16
14 <170> SOFTWARE: PatentIn version 3.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 1146
18 <212> TYPE: PRT
19 <213> ORGANISM: Homo sapiens
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31 Pro Leu Trp Leu Arg Ala Tyr Phe Gln Gly Leu Leu Phe Ser Leu Gly
32   35   40   45
35 Cys Gly Ile Gln Arg His Cys Gly Lys Val Leu Phe Leu Gly Leu Leu
36   50   55   60
39 Ala Phe Gly Ala Leu Ala Leu Gly Leu Arg Met Ala Ile Ile Glu Thr
40 65   70   75   80
43 Asn Leu Glu Gln Leu Trp Val Glu Val Gly Ser Arg Val Ser Gln Glu
44   85   90   95
47 Leu His Tyr Thr Lys Glu Lys Leu Gly Glu Glu Ala Ala Tyr Thr Ser
48   100   105   110
51 Gln Met Leu Ile Gln Thr Ala Arg Gln Glu Gly Glu Asn Ile Leu Thr
52   115   120   125
55 Pro Glu Ala Leu Gly Leu His Leu Gln Ala Ala Leu Thr Ala Ser Lys
56   130   135   140
59 Val Gln Val Ser Leu Tyr Gly Lys Ser Trp Asp Leu Asn Lys Ile Cys
60 145   150   155   160
63 Tyr Lys Ser Gly Val Pro Leu Ile Glu Asn Gly Met Ile Glu Arg Met
64   165   170   175
67 Ile Glu Lys Leu Phe Pro Cys Val Ile Leu Thr Pro Leu Asp Cys Phe
68   180   185   190
71 Trp Glu Gly Ala Lys Leu Gln Gly Gly Ser Ala Tyr Leu Pro Gly Arg
72   195   200   205
75 Pro Asp Ile Gln Trp Thr Asn Leu Asp Pro Glu Gln Leu Leu Glu Glu
76   210   215   220
79 Leu Gly Pro Phe Ala Ser Leu Glu Gly Phe Arg Glu Leu Leu Asp Lys
80 225   230   235   240
83 Ala Gln Val Gly Gln Ala Tyr Val Gly Arg Pro Cys Leu His Pro Asp
84   245   250   255
87 Asp Leu His Cys Pro Pro Ser Ala Pro Asn His His Ser Arg Gln Ala
88   260   265   270
91 Pro Asn Val Ala His Glu Leu Ser Gly Gly Cys His Gly Phe Ser His

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92          275              280                    285
95 Lys Phe Met His Trp Gln Glu Glu Leu Leu Leu Gly Gly Met Ala Arg
96      290              295                 300
99 Asp Pro Gln Gly Glu Leu Leu Arg Ala Glu Ala Leu Gln Ser Thr Phe
100 305                310                315                    320
103 Leu Leu Met Ser Pro Arg Gln Leu Tyr Glu His Phe Arg Gly Asp Tyr
104          340              325              330              335
107 Gln Thr His Asp Ile Gly Trp Ser Glu Glu Gln Ala Ser Thr Val Leu
108          340              345                    350
111 Gln Ala Trp Gln Arg Arg Phe Val Gln Leu Ala Gln Glu Ala Leu Pro
112      355              360                 365
115 Glu Asn Ala Ser Gln Gln Ile His Ala Phe Ser Ser Thr Thr Leu Asp
116      370              375                 380
119 Asp Ile Leu His Ala Phe Ser Glu Val Ser Ala Ala Arg Val Val Gly
120 385                390                395                    400
123 Gly Tyr Leu Leu Met Leu Ala Tyr Ala Cys Val Thr Met Leu Arg Trp
124              405              410              415
127 Asp Cys Ala Gln Ser Gln Gly Ser Val Gly Leu Ala Gly Val Leu Leu
128      420              425                 430
131 Val Ala Leu Ala Val Ala Ser Gly Leu Gly Leu Cys Ala Leu Leu Gly
132      435              440                 445
135 Ile Thr Phe Asn Ala Ala Thr Thr Gln Val Leu Pro Phe Leu Ala Leu
136      450              455                 460
139 Gly Ile Gly Val Asp Asp Val Phe Leu Leu Ala His Ala Phe Thr Glu
140 465              470              475                    480
143 Ala Leu Pro Gly Thr Pro Leu Gln Glu Arg Met Gly Glu Cys Leu Gln
144              485              490              495
147 Arg Thr Gly Thr Ser Val Val Leu Thr Ser Ile Asn Asn Met Ala Ala
148          500              505                    510
151 Phe Leu Met Ala Ala Leu Val Pro Ile Pro Ala Leu Arg Ala Phe Ser
152      515              520                 525
155 Leu Gln Ala Ala Ile Val Val Gly Cys Thr Phe Val Ala Val Met Leu
156          530              535                    540
159 Val Phe Pro Ala Ile Leu Ser Leu Asp Leu Arg Arg Arg His Cys Gln
160 545              550              555                    560
163 Arg Leu Asp Val Leu Cys Cys Phe Ser Ser Pro Cys Ser Ala Gln Val
164              565              570              575
167 Ile Gln Ile Leu Pro Gln Glu Leu Gly Asp Gly Thr Val Pro Val Gly
168          580              585                    590
171 Ile Ala His Leu Thr Ala Thr Val Gln Ala Phe Thr His Cys Glu Ala
172          595              600                    605
175 Ser Ser Gln His Val Val Thr Ile Leu Pro Pro Gln Ala His Leu Val
176      610              615                 620
179 Pro Pro Pro Ser Asp Pro Leu Gly Ser Glu Leu Phe Ser Pro Gly Gly
180 625              630              635                    640
183 Ser Thr Arg Asp Leu Leu Gly Gln Glu Glu Glu Thr Arg Gln Lys Ala
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187 Ala Cys Lys Ser Leu Pro Cys Ala Arg Trp Asn Leu Ala His Phe Ala
188              660              665              670
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203 Thr Lys Glu His Ala Phe Leu Ser Ala Gln Leu Arg Tyr Phe Ser Leu
204              725              730                   735
207 Tyr Glu Val Ala Leu Val Thr Gln Gly Gly Phe Asp Tyr Ala His Ser
208              740              745                   750
211 Gln Arg Ala Leu Phe Asp Leu His Gln Arg Phe Ser Ser Leu Lys Ala
212        755              760                   765
215 Val Leu Pro Pro Pro Ala Thr Gln Ala Pro Arg Thr Trp Leu His Tyr
216        770              775                   780
219 Tyr Arg Asn Trp Leu Gln Gly Ile Gln Ala Ala Phe Asp Gln Asp Trp
220 785              790                   795                   800
223 Ala Ser Gly Arg Ile Thr Arg His Ser Tyr Arg Asn Gly Ser Glu Asp
224              805              810                   815
227 Gly Ala Leu Ala Tyr Lys Leu Leu Ile Gln Thr Gly Asp Ala Gln Glu
228        820              825                   830
231 Leu Leu Asp Phe Ser Gln Leu Thr Thr Arg Lys Leu Val Asp Arg Glu
232        835              840                   845
235 Gly Leu Ile Pro Pro Glu Leu Phe Tyr Met Gly Leu Thr Val Trp Val
236        850              855                   860
239 Ser Ser Asp Pro Leu Gly Leu Ala Ala Ser Gln Ala Asn Phe Tyr Pro
240 865              870                   875                   880
243 Pro Pro Pro Glu Trp Leu His Asp Lys Tyr Asp Thr Thr Gly Glu Asn
244              885              890                   895
247 Phe Arg Ile Pro Pro Ala Gln Pro Leu Glu Phe Ala Gln Phe Pro Phe
248        900              905                   910
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252        915              920                   925
255 Gly Ala Arg Ala Ala Cys Ala Glu Ala Gly Gln Ala Gly Val His Ala
256        930              935                   940
259 Tyr Pro Ser Gly Ser Pro Phe Leu Phe Trp Glu Gln Tyr Leu Gly Leu
260 945              950                   955                   960
263 Arg Arg Cys Phe Leu Leu Ala Val Cys Ile Leu Leu Val Cys Thr Phe
264              965              970                   975
267 Leu Val Cys Ala Leu Leu Leu Leu Asn Pro Trp Thr Ala Gly Leu Ile
268        980              985                   990
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279 Ala Ser Val Gly Ile Gly Val Glu Phe Thr Val His Val Ala Leu
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283 Gly Phe Leu Thr Thr Gln Gly Ser Arg Asn Leu Arg Ala Ala His
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287 Ala Leu Glu His Thr Phe Ala Pro Val Thr Asp Gly Ala Ile Ser
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292       1070                1075                1080
295 Ile Val  Arg Tyr Phe Phe Ala  Ala Leu Thr Val Leu  Thr Leu Leu
296       1085                1090                1095
299 Gly Leu  Leu His Gly Leu Val  Leu Leu Pro Val Leu  Leu Ser Ile
300       1100                1105                1110
303 Leu Gly  Pro Pro Pro Glu Val  Ile Gln Met Tyr Lys  Glu Ser Pro
304       1115                1120                1125
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448 ctacag                                                              126
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